

WHAT IS CLAIMED IS:

1. A system for communications on a bi-directional medium, comprising:
a first repeater, a second repeater, a third repeater and a fourth repeater, each
of which is coupled to said medium,
wherein said first repeater and said second repeater communicate with each
other on a first band for a transmission from said first repeater to said
second repeater, and on a second band for a transmission from said
second repeater to said first repeater,
wherein said second repeater and said third repeater communicate with each
other on a third band for a transmission from said second repeater to
said third repeater, and on a fourth band for a transmission from said
third repeater to said second repeater, and
wherein said third repeater and said fourth repeater communicate with each
other on said second band for a transmission from said third repeater to
said fourth repeater, and on said first band for a transmission from said
fourth repeater to said third repeater.
2. The system of claim 1, wherein said medium is a power line.